



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,039	03/03/2004	Yoshinao Katano	8391-50US (KP032419)	4820

570 7590 03/24/2006

AKIN GUMP STRAUSS HAUER & FELD L.L.P.  
ONE COMMERCE SQUARE  
2005 MARKET STREET, SUITE 2200  
PHILADELPHIA, PA 19103

EXAMINER

REIFSNYDER, DAVID A

ART UNIT	PAPER NUMBER
----------	--------------

1723

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/792,039

Applicant(s)

KATANO, YOSHINAO

Examiner

David A. Reifsnnyder

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/3/2004.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention. .

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1; the recitation of "gaps formed by the contact surfaces of neighboring filtering rings" is vague and indefinite as to what is meant by "by the contact surfaces" and "neighboring filtering rings". Does "by the contact surfaces" mean --on the contact surfaces-- and "neighboring filtering rings" mean --adjacent filtering rings--?

Regarding claim 4; the recitation "of a supply pressure P1 of the object fluid to and inlet area of the ring lamination" is vague and indefinite, because the recitation of "to an inlet area" is grammatically incorrect and therefore hard to understand.

Regarding claim 5; the "and pressing the object fluid in the ring lamination" is vague and indefinite as to what part of the ring lamination the object fluid is pressed into. Is the object fluid pressed into the gaps formed on the contact surfaces of adjacent filtering rings?

Regarding claim 6; the recitation of "A fluid treating apparatus for dividing an object fluid into a first separated fraction and a second separated fraction and separating these fractions, comprising" is vague and indefinite as to how the fractions

Art Unit: 1723

can be separated twice. One way to correct this problem would be to change the preamble of claim 6 to: **--A fluid treating apparatus for dividing an object fluid into first and second separated fractions and removing the first and second separated fractions, comprising--.**

Regarding claim 12; the recitation of "to separate one of the fractions from the ring lamination" is vague and indefinite and hard to understand, because any fraction in the ring lamination is already a separated fraction. (i.e. a fractions can be removed from the ring lamination not separated from the ring lamination)

Regarding claim 13; the recitation "for removing solids adhering to an inner peripheral portion of the ring lamination" is vague and indefinite as to whether the solids adhering to the inner peripheral portion of the ring lamination are the same as the fraction (i.e. the separated fraction) separated (i.e. removed) from the ring lamination in claim 12.

Regarding claim 14; the recitation of "the interior thereof" lacks antecedent basis and it is vague and indefinite as to what is meant by "the interior thereof".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-10, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-52608.

Regarding claims 1, 2, 4-10, 12 and 14; JP 10-52608 discloses a fluid treating apparatus and method, comprising the steps of:

(a) forming a ring lamination by laminating a plurality of ceramic filtering rings with contact surfaces facing each other in a laminating direction and placing the ring lamination in a holder a long cylindrical housing;

(b) providing at least portions of the contact surfaces of the plurality of ceramic filtering rings facing each other, and because the plurality of filtering rings are laminated the plurality of ceramic filtering rings inherently have a contact surface roughness (Ra) in a range of about 0.01  $\mu\text{m}$  to 20  $\mu\text{m}$ ;

(c) pressing in a ring press the ring lamination to cause the contact surfaces to closely adhere to each at a distance in the range of about .0002  $\mu\text{m}$  to 200  $\mu\text{m}$  ;

(d) directing from an object fluid supply an object fluid into gaps formed by contact surfaces of adjacent ceramic filtering rings of the ring lamination; and

(e) dividing the object fluid into a first separated fraction and a second separated fraction for separation, wherein the speed of the division and separation of the object fluid into the first separated fraction and the second separated fraction is controlled by using a pump or gate valve pressure source to create a pressure difference  $\Delta P = P_1 - P_2$  between a supply pressure  $P_1$  of the object fluid acting on an inlet area ring lamination and a suction pressure  $P_2$  acting on an exit area of the ring lamination; and

(f) means for stripping one of the separated fractions from the plurality of ceramic filtering rings including a backwasher arranged in a center hole in the ring lamination.

(Figs 1-3; Abstract)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-52608.

Regarding claims 3 and 11; JP 10-52608 discloses the claimed invention except for his plurality of ceramic filtering rings clearly being made of a magnetic material. It is considered that it would have been obvious to one having ordinary skill in the art at the time the invention was made that JP 10-52608's ceramic filtering rings be made of a

Art Unit: 1723

magnetic material because ceramic is often times made of a magnetic material.

Furthermore, it was known in the art at the time of the invention to make a filtering ring magnetic, so as to better capture any ferromagnetic material that is in the fluid that is being treated.

Regarding claim 13; JP 10-52608 discloses the claimed invention except for JP 10-52608's means for stripping one of the separated fractions from the plurality of ceramic filtering means to further including a rotary brush arranged in the center hole of the ring lamination. It is considered that it would have been obvious to one having ordinary skill in the art at the time the invention was made for JP 10-52608's means for stripping one of the separated fractions from the plurality of ceramic filtering further including a rotary brush arranged in the center hole of the ring lamination, since it is well known for a means for stripping to include a backwasher and a rotary brush.

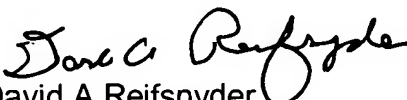
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Reifsnyder whose telephone number is (571) 272-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David A Reifsnyder  
Primary Examiner  
Art Unit 1723

DAR